



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

**MaineGeneral Medical Center
Kennebec County
Waterville, Maine
A-120-71-K-M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. MaineGeneral Medical Center (MGMC) was issued Air Emission License A-120-71-J-R/A on October 25, 2006 permitting the operation of emission sources associated with their healthcare facility.
2. The equipment addressed in this license is located at 30 Chase Ave in Waterville, Maine also known as the Seton Campus.
3. MGMC has requested a minor revision to their license in order to install a new 500 kW emergency generator.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Electrical Generation Equipment

<u>Equipment</u>	<u>Power Output (kW)</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Generator #2	500	4.75	diesel fuel, 0.05%	3

C. Application Classification

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. NSPS Generator

MGMC proposes to install a second emergency generator (Generator #2).

Emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Generator #2 was ordered after July 11, 2005 and manufactured after April 1, 2006. Therefore, Generator #2 is subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

A summary of the BACT analysis for Generator #2 (500 kW) is the following:

1. Generator #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.
2. Beginning October 1, 2010, Generator #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
3. Generator #2 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #2 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total.

Compliance shall be demonstrated by a written log of all generator operating hours.

4. Generator #2 shall be equipped with a non-resettable hour meter.
5. 06-096 CMR 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
6. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
7. MGMC shall operate and maintain Generator #2 in accordance with the manufacturer's written instructions. MGMC shall not change settings that are not approved in writing by the manufacturer.
8. Visible emissions from Generator #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

C. Annual Emissions

MGMC shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers	3.6	3.6	15.8	13.5	1.1	0.1
Generator #1	0.1	0.1	0.1	2.7	0.6	0.2
Generator #2	0.1	0.1	0.1	3.8	1.0	0.1
Total TPY	3.8	3.8	16.0	20.0	2.7	0.4

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-120-71-K-M subject to the conditions found in Air Emission License A-120-71-J-R/A and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

Condition (19) of Air Emission License A-120-71-J-R/A is deleted.

The following are New Conditions:

(20) Generator #2

- A. Generator #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm. [40 CFR 60.4207(a)]
- B. Beginning October 1, 2010, Generator #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [40 CFR 60.4207(b)]
- C. Generator #2 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]
- D. Generator #2 shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]
- E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #2	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

- F. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #2	0.57	0.57	0.24	15.20	4.04	0.43

- G. Generator #2 is subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer

that this engine class meets the appropriate Tier standards.
[40 CFR 60, Subpart III]

- H. MGMC shall operate and maintain Generator #2 in accordance with the manufacturer's written instructions. MGMC shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]
- I. Visible emissions from Generator #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

DONE AND DATED IN AUGUSTA, MAINE THIS 28th DAY OF September, 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks Jr.
DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-120-71-J-R/A

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/4/09

Date of application acceptance: 8/10/09

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.

